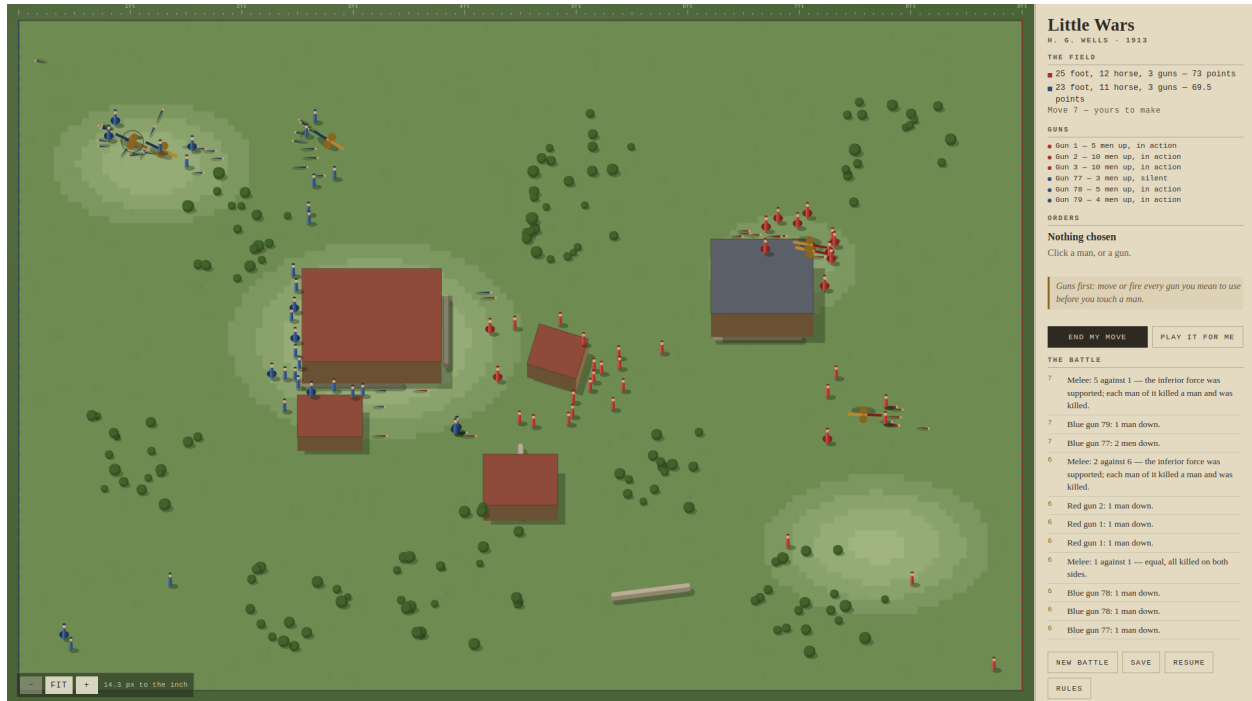


Little Wars

The game H. G. Wells published in 1913, with his rules kept as he wrote them



The Battle of Hook's Farm at its fourteenth move: the farm on its rise, Firely Church to the right, and both forces closing on the middle.

Wells called it a game for boys from twelve years of age to one hundred and fifty, and for that more intelligent sort of girl who likes boys' games and books. He also meant it seriously. Having invented the thing, he spent the last chapter of his own book arguing that anyone who wanted a real war should be made to play this one instead.

This manual sets out what the game is, how it is played, and where the implementation had to make a decision Wells did not make for it. Every figure quoted here was measured from the modules in this package rather than typed from memory.

The rules

DISTANCE

Every rule Wells wrote is a distance, so the floor is drawn to scale and carries a rule along its edge marked in feet. Nothing in this game is measured in squares or hexes; a man may stand anywhere he can stand.

	A MOVE	IN INCHES
Infantry-man	one foot	12
Cavalry-man	two feet	24
Gun, drawn by infantry	one foot	12
Gun, drawn by four horse	two feet	24

GUNS FIRST

At the start of a move you deal with your guns before you touch a single man. The moment a man has moved, your guns are finished for that move. Wells is emphatic that there is no exception to this, and there is none here.

A gun is in action only when there are four men of its own side within six inches of it. Fewer than that, and it can be neither moved nor fired. It may fire as many as four shots in a move, *or* be moved, but never both; and when it has fired, two of its men must stand at the end of the trail, where they can be seen and shot.

Guns must not be fired before the second move of the first player. In the defensive game the defender may open fire at once.

WHAT A SHOT DOES

Wells gives no table here. He writes that men knocked over by a shot are dead, and that as many men are dead as a shot knocks over or causes to fall. That is a statement about the world rather than about arithmetic, so in this implementation the shot is simulated.

A wooden bolt leaves the muzzle, drops under gravity, strikes the ground, bounces, rolls, glances off a wall, and ploughs through whatever stands in its way, laying men down in the direction it was travelling. A man it knocks over brings down what he falls across. The only thing rolled for is the gunner's error in laying the piece.

The consequence is that there is no cover rule, no dead-ground rule and no enfilade rule, because none is needed. What the gun can reach, it can reach.

The gun

The chance of a single shot killing a single standing man, measured over the shipped physics at each range. This is the table printed on the range card that appears when you choose a gun.

RANGE	INCHES	HITS IN 100
6 in	6	99
1 ft 0 in	12	80
1 ft 6 in	18	62
2 ft 0 in	24	48
3 ft 0 in	36	31
4 ft 0 in	48	25
5 ft 0 in	60	23
7 ft 0 in	84	16
9 ft 0 in	108	11

Those are the odds against one man. Against a body they are much better, because the bolt does not stop. Fired down the length of a close file of eight men, the average was **2.68 men down a shot**. Fired across the same file it takes one. Wells's own advice to fire down a line rather than across it is not a convention here; it is what the physics does.



A gun laid, with its range card open. The rings are the table above, drawn on the floor at the scale of the floor.

A wall does not modify anything. It stops the bolt. Over 300 shots at a man standing just behind a garden wall, **0** were killed; the same man in the open was killed **54** times.

The melee

At the end of a move, any man of the side that has just moved who is touching an enemy begins a melee, and every man within six inches of the men in contact is drawn into it, on both sides. Then the numbers decide it, and there is nothing else to decide it with.

THE TWO BODIES	WHAT HAPPENS
Equal	Every man on both sides is killed
Smaller one supported	Each of its men kills one of yours and dies
Smaller one isolated	The surplus takes prisoners; the rest kill a man each and are killed

A body is *isolated* when it has less than half its own number of its own side within a move of it. Wells works one out: nineteen men move into a melee with thirteen, who have only five in support.

Thirteen are outnumbered by six, so six become prisoners. The remaining seven each kill a man and are killed. Seven of the nineteen are therefore dead, twelve remain, and they hold six prisoners. This package reproduces that arithmetic exactly, and it is one of the assertions the build refuses to ship without.

The lesson for a general is that charging is expensive. Against a supported body you trade man for man and gain nothing at all. Charge what is isolated, and charge to take a gun.

PRISONERS

One man can escort as many as seven prisoners, keeping within six inches of them. They are disarmed, they take no part in any fighting, and they are liberated the moment their escort is shot -- though they may not be moved by their own side until the move after that, and they must reach their own back line before they can be given their arms again.

TAKING A GUN

A gun is captured when there is no man whatever of its own side within six inches of it and at least four men of yours have moved up and passed its wheel axis, going in the direction of their attack. It then fires for you. A gun is worth 10 points, which is the price of 10 infantry-men, and it is usually the thing on the field most worth going after.

The six battles

BATTLE	RED	BLUE	R	B	D	MOVES
Battle of Hook's Farm	48/25/3	48/25/3	3	3	4	55
Blow at the Rear	30/15/2	30/15/2	2	2	6	33
Defensive Game	48/25/3	32/17/2	3	7	0	22
Cannonade of Sandgate	30/15/2	30/15/2	4	2	4	45
Choosing Game	0/80/3	110/0/4	0	9	1	56
Kriegspiel (Appendix)	48/25/3	48/25/3	1	2	7	46

Forces are given as foot / horse / guns. R, B and D are the results of 10 battles of each, played by two equally skilled machine generals; the last column is the average length in moves.

The Battle of Hook's Farm. The exemplary game of Chapter IV, fought to a finish over the farm and Firely Church. Three guns, forty-eight infantry and twenty-five horse a side, exactly equal.

The Blow at the Rear. Get three men to any point of the enemy back line. He is then held to have suffered a strategic defeat and must retire his whole force over his own back line in six moves.

The Defensive Game. The defender, two-thirds as strong, must prevent the attacker putting a lodgement on his back line while still a quarter of his original strength. He is concentrated on ground of his own choosing and may open fire at once.

The Cannonade of Sandgate. A brisk little thing in the hollow, over the mill and the two knolls. Two guns, thirty foot and fifteen horse a side, on a short front where the guns tell at once.

The Choosing Game. Each general spends 150 points — infantry 1, cavalry 1-1/2, a gun 10. Here a Boer-like cavalry force of eighty with three guns meets a hundred and ten infantry with four.

Kriegspiel (Appendix). Colonel Sykes' extensions: rifle-fire from every five steady infantry in a line, and shells that drop where they fall and kill half of what stands within three inches.

One finding is worth stating plainly, because it is a fact about Wells's own point system rather than about this implementation. In the Choosing Game each general spends 150 points, at one for an infantry-man, one and a half for a cavalry-man and ten for a gun. **A hundred and ten infantry with four guns beats every other purse tried against it.** The reason is in the melee: it is settled by the number of men, whatever arm they are, so a cavalry-man costs half again as much for exactly the same value in a fight. The machine spends its purse that way, and beating it is the puzzle.

Your opponent

The machine general comes in three tempers. They are not one general with a handicap bolted on: each was fitted by playing them against one another some hundreds of times and keeping whatever actually won.

	WON	LOST	DRAWN	POINTS
ace against cadet	12	1	3	145 v 59
ace against veteran	6	3	7	110 v 84
veteran against cadet	9	0	7	135 v 64

Measured over 16 battles a pairing at Hook's Farm, pooled over both orientations so that an advantage of side cannot be read as an advantage of skill.

Two things came out of that fitting against expectation, and they shaped the three tempers.

Fire aimed at gun crews, and fire aimed at crowds in the hope that the bolt will plough down a file, both lose to the plain policy of shooting whichever man is most likely to be hit. So it is the novice here who chases the spectacular mark, and the good general who does not.

The other is that a general is separated from a novice less by his opinions than by how much of his move he actually gets through before time is called. Wells noticed this himself when he put a clock on the game: the limit, he wrote, led to small bodies of men lagging and getting left, to careless exposures, and to rapid, less accurate shooting. The cadet here gets through about two-thirds of his force in a move; the general gets through all of it.

At the table



A cavalry-man chosen: the circle round him is two feet at the scale of the floor, and the line shows where he is being sent.

DOES

Click a man	Chooses him and draws his move round him
Click the ground	Sends him there, if he can reach it
Click a gun	Chooses it and opens its range card
Click the ground again	Lays and fires the gun
M	Moves the chosen gun instead of firing it
Space	Ends your move
A	Lets the machine take your move for you
Escape	Chooses nobody
Wheel, or + and -	Zooms, about the pointer
Drag, or the arrows	Walks you round the table
Fit, or 0	Shows the whole country at once

SCORING A FOUGHT-OUT BATTLE

	POINTS
The victory	100
Each gun held, or in a position to be taken	10
Each cavalry-man alive and uncaptured	1.5
Each infantry-man alive and uncaptured	1
Each prisoner, held or lost	0.5

Because a live man still counts, a skilful retreat is worth making: a man walked off your own back line is out of the battle but keeps his point, and a gun saved keeps its ten. Wells built that in deliberately, so that a beaten general has something to play for besides a last charge.